

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A particle comprising:
 - (a) a metallic core of the metallic element tungsten optionally together with other metallic elements wherein the core of the particle has a tungsten content of 20 to 100 comprising 20% by weight[%]] or greater of metallic tungsten, and wherein said particle is of sufficient size to provide X-ray attenuating properties as an X-ray contrast agent, but below a kidney threshold size; and
 - (b) core is coated with a charged coating layer overlying said core to passivate the reactive surface of the tungsten particle, said coating layer comprising a polymeric layer formed from an acrylic acid monomerspolymer, said layer having a sufficient density to passivate the core.
2. (Previously presented) A particle as claimed in claim 1 wherein the diameter is in the range of about 1.5 to about 20 nm.
3. (Previously presented) A particle as claimed in claim 1 wherein the diameter is in the range of 1.5 to 15 nm.
4. (Previously presented) A particle as claimed in claim 1 wherein the diameter is in the range of 1.5 to 7 nm.
5. (Previously presented) A particle as claimed in claim 1 wherein the diameter is in the range of 2 to 6 nm.
6. (Cancelled)
7. (Previously presented) A particle as claimed in claim 1 wherein the core of the particle has a tungsten content of 50 to 100 weight % of metallic tungsten.

8. (Previously presented) A particle as claimed in claim 1 wherein the core of the particle has a tungsten content of 85 to 100 weight % of metallic tungsten.

9. (Previously presented) A particle as claimed in claim 1 wherein the core of the particle has a tungsten content of 95 to 100 weight % of metallic tungsten.

10. (Previously presented) A particle as claimed in claim 1 wherein the core of the particles has a tungsten content of about 100 weight % of metallic tungsten.

11. (Currently amended) A particle as claimed in claim 1 wherein the core of the particle further comprises ~~metallic tungsten and one or more of the elements~~ rhenium, iridium, niobium, tantalum or molybdenum in their metallic form.

12. (Cancelled)

13. (Previously presented) A particle as claimed in claim 1 wherein the charged coating layer provides a net positive or negative charge at the pH of the environment where the particle is administered.

14. (Previously presented) A particle as claimed in claim 1 wherein the charged coating layer provides a negative charge at the pH of the environment where the particle is administered.

15. (Currently amended) A particle as claimed in claim 1 wherein the charged coating layer provides the net negative charge of acidic groups ~~such as carboxylic acid groups, sulphonic acid groups, phosphoric acid groups and acidic heterocyclic groups~~.

16. (Withdrawn) A particle as claimed in claim 1 wherein the charged coating layer provides the net positive charge of basic amino, amidine, guanidine, quaternary ammonium and phosphonium groups.

17. (Previously presented) A particle as claimed in claim 1 wherein the charged coating layer comprises up to 50 charges per particle.

18. (Previously presented) A particle as claimed in claim 1 wherein the charged coating layer comprises up to 40 charges per particle.

19. (Previously presented) A pharmaceutical as claimed in claim 1 wherein the charged coating layer comprises up to 25 charges per particle.

20. (Previously presented) A particle as claimed in claim 1 wherein the charged coating layer comprises at least 8 charges per particle.

21. (Previously presented) A particle as claimed in claim 1 wherein the charged coating layer comprises at least 4 charges per particle.

22. (Cancelled)

23. (Currently amended) A particle as claimed in claim 1 wherein said coating the polymeric layer comprises a hydrophilic polymer.

24. (Currently amended) A particle as claimed in claim 1 wherein said coating the polymeric layer comprises a homopolymer.

25. (Currently amended) A particle as claimed in claim 1 wherein said coating the polymeric layer comprises a copolymer.

26. (Cancelled)

27. (Currently amended) A particle as claimed in claim 1 wherein said coating the polymeric layer is formed from at least one monomer containing a charged group.

28. (Currently amended, withdrawn) A particle as claimed in claim 1 wherein said coating the polymeric layer is formed from at least one neutral monomer.

29. (Currently amended, withdrawn) A particle as claimed in claim 1 wherein said coating layer comprises at least one monomer containing a neutral monomer and at least one charged monomer, wherein the molar ratio between the neutral monomer and the charged monomer is below 20:1.

30. (Currently amended, withdrawn) A particle as claimed in claim [[25]] 29, wherein the molar ratio between the neutral monomer and the charged monomer is between 10:1 and 10:1.5.

31-38. (Cancelled)

39. (Currently amended) A pharmaceutical composition comprising the particles of claim 1 and optionally together with a pharmaceutically acceptable solvent or excipient.

40. (Cancelled).

41. (Currently amended) An X-ray contrast agent comprising the [[a]] particle as claimed in claim 1 optionally together with a solvent or excipient.

42. (Cancelled).

43. (Cancelled).

44. (Withdrawn) A method of diagnosis comprising administration of particles of claim 1 to a human or animal body, examining the body with a diagnostic device and compiling data from the examination.

45. (Withdrawn) A method of imaging, specifically X-ray imaging comprising administration of particles of claim 1 to a human or animal body, imaging the body with an imaging device, compiling data from the examination and optionally analysing the data.

46. (Withdrawn) A process for the preparation of particles of claim 1 comprising decomposing a source of tungsten (0) in a high boiling, dried and deoxygenated solvent in the presence of one or more monomers and thereby effecting a thermally induced polymerization of the monomers.

47. (Withdrawn) A process as claimed in claim 34 wherein the source of tungsten (0) is tungsten hexacarbonyl ($W(CO)_6$).

48. (Withdrawn) A process as claimed in claim 34 wherein the solvent comprises di- and triglyme, diphenyl ether, trialkyl phosphine oxide and trialkyl phosphine.

49. (Withdrawn) A process as claimed in claim 34 wherein the solvent comprises trioctyl phosphine oxide and triaoctyl phosphine.

50. (Withdrawn) A process as claimed in claim 34 wherein the high boiling, dried and deoxygenated solvent further comprises a fraction of a lower boiling solvent.

51. (Withdrawn) A process as claimed in claim 38 wherein the fraction of a lower boiling solvent comprises between 5 to 15 volume% of cyclooctane and/or n-heptane.

52. (Withdrawn) A process as claimed in claim 34 further comprising work –up of the formed particles from a low-boiling alkane, specifically from pentane.

53. (Withdrawn) A process as claimed in claim 34 wherein one or more of the monomers comprises silylether-protected polar groups and where the protecting groups are cleaved off in aqueous solution to yield hydrophilic polymer coated particles.

54-61. (Cancelled).

62. (New) A particle as claimed in claim 15, wherein said acidic groups comprise carboxylic acid groups, sulphonic acid groups, phosphoric acid groups, and acidic heterocyclic groups.